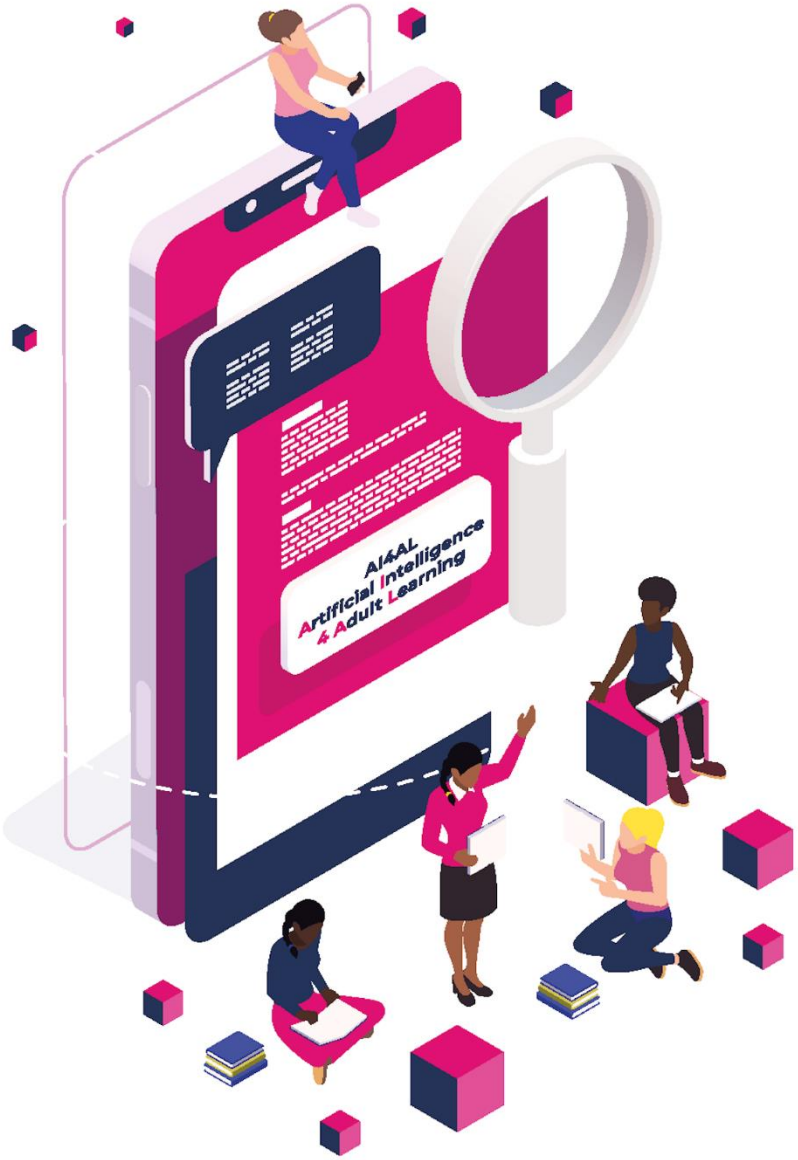
AI4AL
Training Toolkit

WP4: Self-paced Training Path

Artificial Intelligence 4 Adult Learning

www.ai4al.eu @ai4al



Co-funded by
the European Union

Project Partners

Project Number: 101090036 - ERASMUS-EDU-2022-PCOOP-ENGO. Funded by the European Union.

Co-funded by the European Union

Table of Contents

Introduction

The evolving aspirations of artificial intelligence and its growing impact in various sectors, is tackled by the AI4AL project in a reality that aims to use the potential of artificial intelligence to empower education, with a particular focus on the adult education sector. To achieve this goal, the AI4AL project is dedicated to equipping educators and professionals with the knowledge and skills they need to effectively integrate AI into their teaching methodologies.

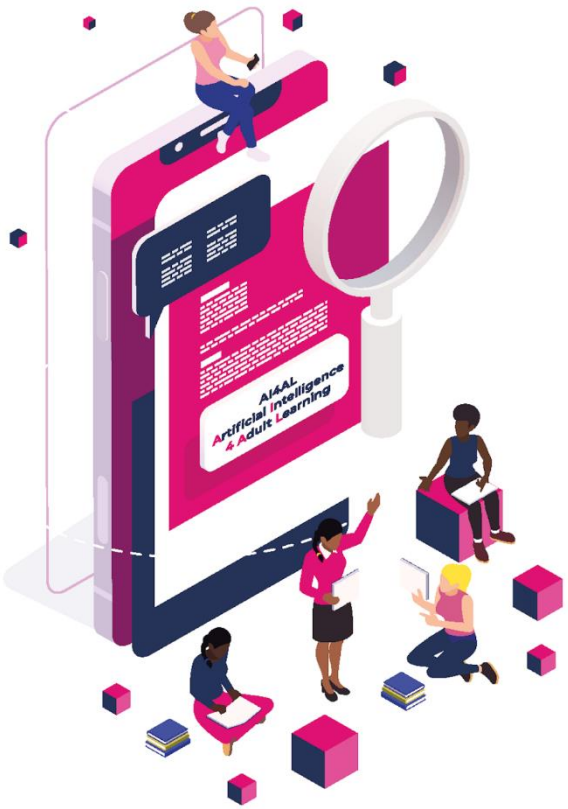
The AI4AL Training Toolkit is a key component of this mission, providing a comprehensive and self-paced approach to empower educators, or other stakeholders in the adult education sector. It will be developed carefully to provide a structured yet flexible learning framework tailored to the unique needs of individuals who want to fully understand the complexities of AI in education.

In this document the educators can find:

1) A summary of the in depth needs analysis the consortium carried out before the project stage as well as during the first part of the project development

2) Access to the full trifecta of the AI4AL self-paced training path meaning: a) The Training Toolkit, b) The Methodology for the content development, c) The actual course available in moodle, containing all gathered resources in all partner languages.

3) The flexible curriculum of the training course, delving into the objectives and learning outcomes of each of the modules of the training path



Needs analysis

In the dynamic landscape of adult education, the role of technology, specifically Artificial Intelligence (AI), has emerged as a transformative force. This analysis aims to explore the multifaceted needs of adult educators in embracing AI tools and methodologies to enhance teaching practices and learning outcomes.

But before we look deeper into the subject, let's start with a definition of AI. Artificial Intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think, learn, and perform tasks that typically require human intelligence. AI encompasses various techniques and technologies aimed at enabling machines to perceive, reason, learn from data, solve problems, and make decisions in a manner that mimics human cognitive abilities. It involves algorithms, data processing, and advanced computational power to analyze patterns, adapt to changing scenarios, and improve performance over time without explicit programming for every task. AI applications range from natural language processing and machine learning to robotics, computer vision, and autonomous systems.

In this needs analysis we will go through some important points such as: Current educational landscape, Understanding educators' needs, AI tools and applications, training and skill development, Infrastructure and resource allocation, pedagogical Integration and Curriculum Development, Ethical and regulatory considerations.

Current Educational Landscape

The current landscape in adult education reflects a scenario where the pace of technological advancements often outstrips the ability of educators to adapt swiftly. This presents a multifaceted challenge that spans various domains within the educational sphere.

Understanding Educators' Needs

Conducting surveys, interviews, and data analysis provides insight into educators' specific needs. The findings reveal a demand for comprehensive training in AI technologies, access to AI-enabled resources, and guidance on pedagogical integration of AI to address individualized learning needs.

AI Tools and Applications

Introducing AI tools tailored for adult education becomes imperative. Adaptive learning systems, data analytics tools, and personalized learning platforms stand out as potential aids to cater to diverse adult learners. Evaluating these tools' adaptability and effectiveness within educational frameworks is crucial.

Training and Skill Development

A structured training program aimed at equipping educators with AI-related skills emerges as a necessity. Skill sets encompass understanding AI basics, data literacy, and utilization of AI platforms. Offerings such as workshops, online courses, and mentorship programs prove invaluable in bridging this knowledge gap.

Infrastructure and Resource Allocation

AI integration necessitates robust technological infrastructure and resource allocation. Budgetary considerations for acquiring AI-based tools and platforms should align with

the scale of implementation. Strategies to secure funding and resources become pivotal in ensuring successful integration.

Pedagogical Integration and Curriculum Development

Strategies focusing on integrating AI seamlessly into existing curriculum frameworks emerge as pivotal. Leveraging AI's capabilities to personalize learning experiences for adult learners demands alignment with educational goals. This integration ensures relevance and efficacy within the educational context.

Ethical and Regulatory Considerations

Ethical concerns surrounding AI integration demand attention. Data privacy, bias, and regulatory compliance need to be addressed through guidelines and best practices. Upholding ethical standards is crucial in fostering responsible AI utilization in education.

Survey conducted in the project

The AI4AL partnership conducted a qualitative survey within the ALE (Adult Learning and Education) sector, collaborating with members of the EAEA (European Association for the Education of Adults) and All Digital. This survey involved participants from a variety of countries, such as Germany, Spain, Italy, Latvia, Switzerland, Serbia, Cyprus, Greece, Belgium, Lithuania, and the European Union. A total of 27 people involved in adult education responded to this.

The participants represented diverse roles within the ALE sector, including adult educators, project managers, policy-makers, researchers, consultants, and content creators. Their collective experience ranged from newcomers to veterans with over a decade in the field. The survey participants included individuals of different genders and ages, showcasing a broad spectrum from the mid-20s to over 70 years old.

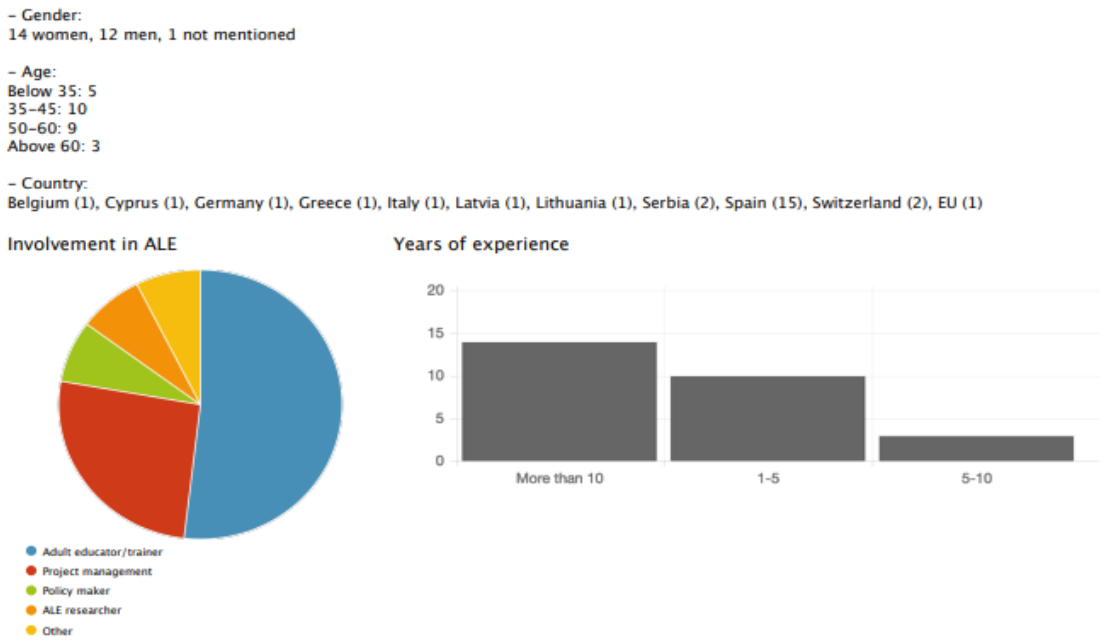


Figure 1:Graph taken from the quantitative results of the AI4AL Initial survey on trainers prepositions regarding AI. In the specified graph we see the results regarding the country of the participants, their role considering their involvemnet with ALE and their

This international and diverse representation highlighted the global nature of ALE, emphasizing the importance of varied perspectives from different cultural backgrounds. The participants' profiles underscored the multidisciplinary nature of ALE, emphasizing the significance of collaboration and knowledge-sharing among professionals with diverse expertise and experiences.

The survey's primary focus was to investigate organizations' familiarity with artificial intelligence (AI) and its application in ALE. By exploring participants' exposure to AI tools, attitudes towards AI technologies, and perceptions of AI's prospects in the ALE field, the survey aimed to provide valuable insights into the readiness and perspectives of the ALE sector in adopting AI processes.

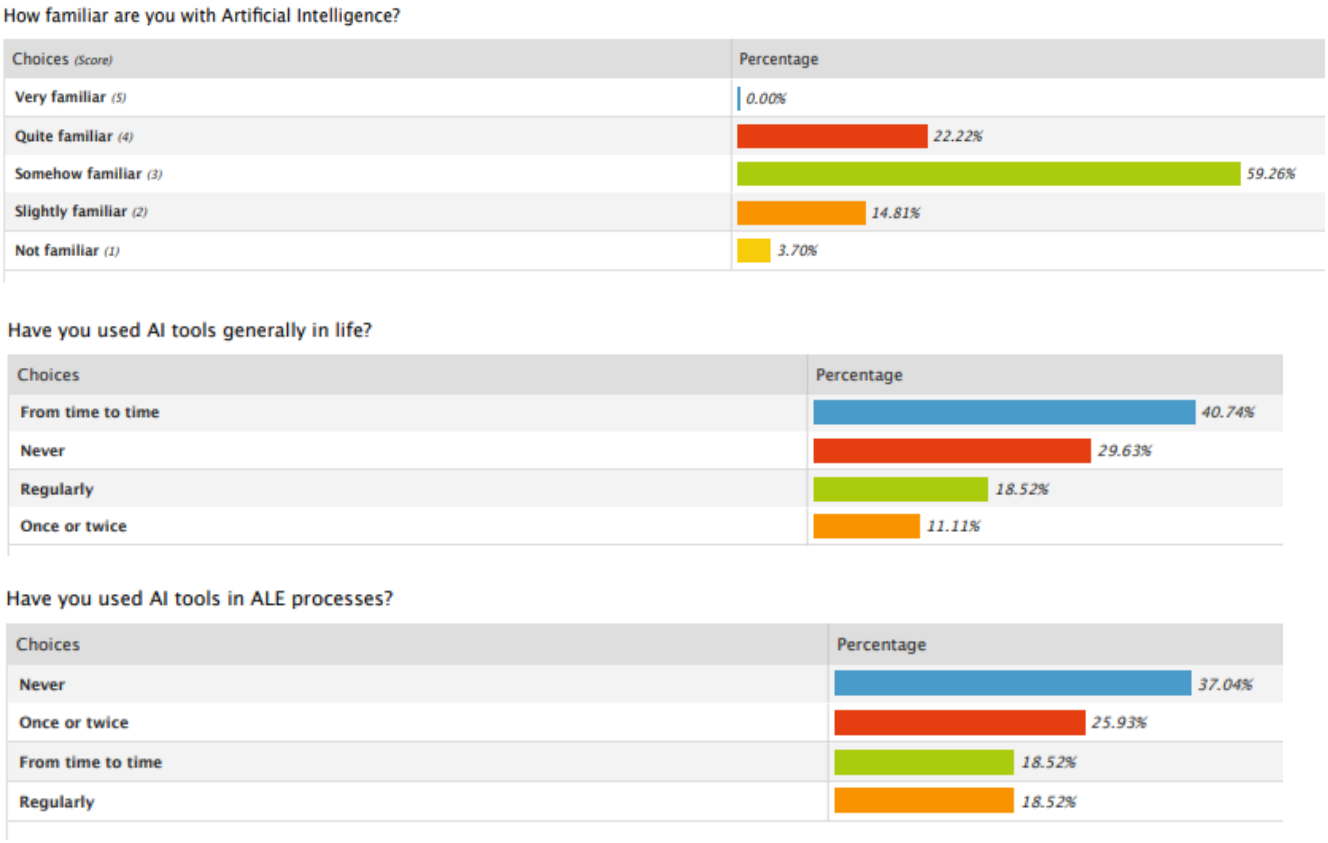


Figure 2:Graph taken from the quantitative results of the AI4AL Initial survey on trainers prepositions regarding AI. In the specified graph we see the results concerning the participants' familiarity with AI

As can be seen from the graphs above AI is not a very widespread topic among those involved in adult education. Almost 60% of respondents are somehow familiar with AI and not a single one is very familiar with it. In terms of the use of AI tools, the difference between those who have used them from time to time and those who have not used them at all is 10% in favour of the first category.

Nearly 40% of respondents have not used AI tools in ALE (Alternative Learning Environment) processes, while nearly 26% have used them once or twice.

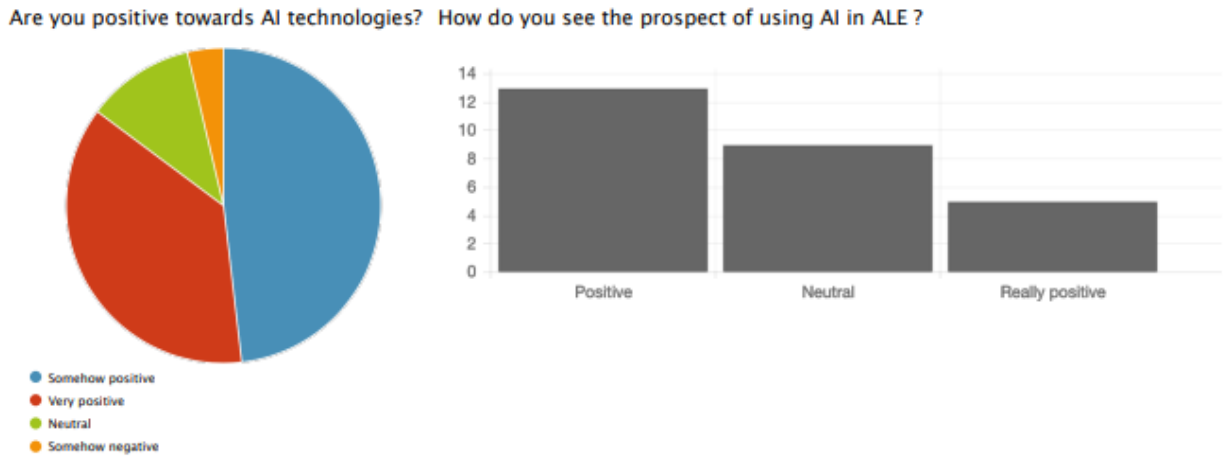


Figure 3:Graph taken from the quantitative results of the AI4AL Initial survey on trainers prepositions regarding AI. In the specified graph we see the results regarding the postioning of the educators towards AI and its use in ALE

In summary, respondents generally displayed a positive attitude towards AI in Adult Learning and Education (ALE), expressing optimism about its potential benefits. Some held neutral or slightly negative views, citing concerns about future implications. Many saw AI's potential in enhancing employability, improving learning resources, assessments, and facilitating multilingual MOOCs. Key factors for successful AI integration in ALE included knowledge and understanding among educators, training on new technologies, awareness of AI's applications, compliance with regulations, and maintaining a balance between human expertise and AI utilization.

The findings indicate a general familiarity with AI among the respondents and a positive outlook on its potential in ALE. While embracing the benefits of AI, it is crucial to maintain a balance between human expertise and the utilization of AI tools in ALE.

It is recommended that ALE stakeholders, including trainers and educators, receive training on AI applications, fostering awareness of AI's capabilities and ethical considerations. Additionally, promoting AI literacy and critical thinking skills can enable ALE practitioners to effectively leverage AI tools and assess their outcomes.

By embracing AI responsibly and integrating it into ALE practices, there is a potential to enhance learning experiences, provide personalized support, and expand opportunities for adult learners.

Conclusion

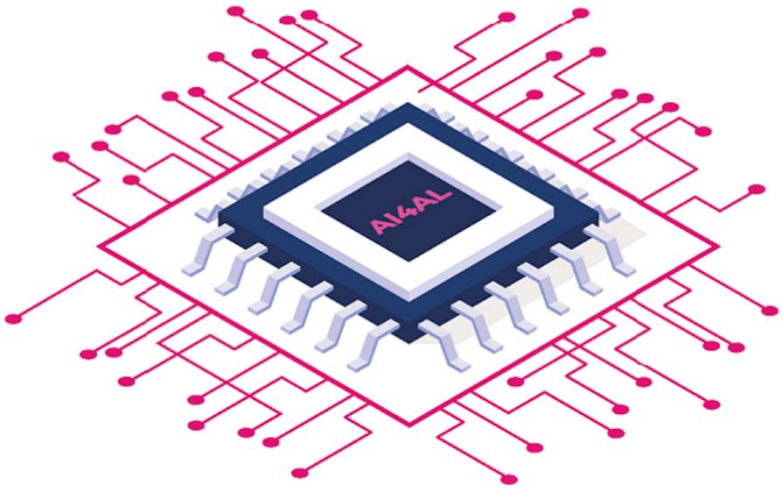
The integration of Artificial Intelligence (AI) in adult education marks a transformative shift that holds tremendous potential to reshape the educational landscape. This dynamic evolution, however, hinges upon addressing critical components essential for successful AI integration within the realm of adult education.

- Comprehensive Training: Equipping educators with the necessary skills and knowledge to navigate AI technologies is fundamental. Comprehensive training programs tailored to adult educators empower them to harness the potential of AI tools effectively. This training should encompass not only technical aspects but

also pedagogical strategies for seamless integration into teaching methodologies.

- Resource Allocation: Adequate resource allocation, both in terms of technological infrastructure and financial investments, is imperative. Institutions need to prioritize and allocate resources for acquiring AI-enabled tools and platforms, ensuring that educators have access to the necessary technological infrastructure to implement AI-driven solutions effectively.
- Pedagogical Integration: The successful integration of AI into adult education requires careful consideration of its alignment with pedagogical goals. Educators must explore ways to integrate AI seamlessly into existing curriculum frameworks, leveraging its capabilities to personalize learning experiences and cater to diverse learning needs effectively.
- Ethical Considerations: Ethical guidelines and considerations form the backbone of responsible AI utilization in education. Emphasizing ethical practices surrounding data privacy, bias mitigation, and regulatory compliance is crucial. Ensuring that AI applications in education uphold ethical standards is essential to foster a trustworthy and equitable learning environment.

In conclusion, the integration of AI in adult education represents an unparalleled opportunity for transformative growth. By strategically addressing educators' needs through comprehensive training, resource allocation, pedagogical integration, and ethical considerations, we pave the way for a future where AI seamlessly augments teaching practices and enriches learning experiences. This amalgamation of technology and education propels us toward a more adaptive, personalized, and inclusive educational landscape, unlocking the full potential of adult education in the digital era.



The Self-Paced Training Path Tools

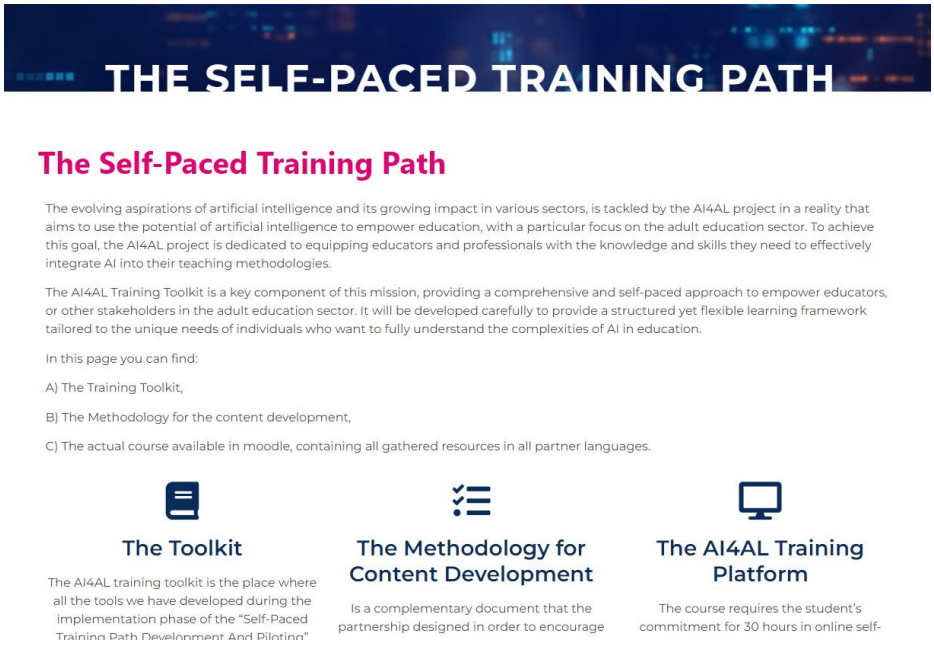
The AI4AL training toolkit is the place where all the tools we have developed during the implementation phase of the “Self-Paced Training Path Development And Piloting” work-package of the AI4AL project. The goal of these tools is to train self-learning educators on the use of AI4AL and the application of AI technologies to the ALE sector.

In the project website the interactive elements and independent publications of the work-package are available. Namely these are:

1) The Toolkit: The toolkit is this document that you are currently reading and it includes a needs analysis, the definition of training objectives and the extensive curriculum of the self-paced training path.

2) The Methodology for content development: Is a complementary document that the partnership designed in order to encourage the educators to even design their own self-paced training courses concerning similar areas of pedagogical interest, included the pedagogical framework used for the design of the contents as well as the technical and quality requirements for the design of the teaching materials.

3) The self-paced training path: The course requires the student’s commitment for 30 hours in online self-paced learning. The contents will be organised modularly and linked by a narrative that leads to the discovery of training pills through “missions”. Progress in each mission is subject to choices, the correctness of which will depend on the real understanding of the contents used up to now, and complemented by the self-assessment session of each module. The delivery platform created will be including the teaching materials, the pool of tools and resources collected to complement the contents of the modules and for a for discussion.



Click here to visit our platform and the rest of the tools

The Training Toolkit Curriculum

Training objectives

The training objectives of the self-paced training path and toolkit were defined using the overarching competence framework DigComp. The DigComp framework is a reference model that defines digital competence in Europe, providing a useful structure for defining learning outcomes related to digital skills. Here are seven learning outcomes for the AI4AL Training Toolkit explained with reference to the DigComp framework:

1. **Digital Literacy and AI Awareness (DigComp: Citizens Interacting with AI Systems):**
    - Participants will develop an understanding of AI concepts, its potential applications in Adult Education, and its societal implications. They will grasp the basics of AI terminology and its relevance in the digital age.
2. **Critical Thinking and Problem-Solving (DigComp: Problem-Solving):**
    - Trainees will enhance their critical thinking skills by analyzing scenarios and applying AI4AL matching tool to solve problems in Adult Education. They will learn to evaluate the appropriateness and effectiveness of AI solutions.
3. **Data Analysis and Interpretation (DigComp: Information and Data Literacy):**
    - Participants will learn to use the AI4AL matching tool to analyze data and interpret the outcomes, facilitating informed decision-making and personalized strategies for Adult Education.
4. **Ethical and Responsible AI Use (DigComp: Communication and Collaboration - Engaging Citizenship Through Digital Technologies):**
    - Trainees will gain insights into the ethical considerations related to AI use in Adult Education. They will understand the importance of responsible AI implementation, considering biases, privacy, and fairness.
5. **Collaborative Learning and Digital Communication (DigComp: Communication and Collaboration):**
    - Participants will collaborate with peers, discussing AI concepts and sharing experiences using the training platform. They will enhance their digital communication skills while exploring the potential of AI for collaborative learning in the Adult Education sector.
6. **Adaptive Learning and Flexibility (DigComp: Problem Solving - Creatively Using Digital Technology):**
    - Trainees will adapt to the dynamic nature of AI technologies and their role in Adult Education. They will demonstrate flexibility in utilizing the AI4AL matching tool in various educational contexts to meet diverse learning needs.

7. **Empowerment and Lifelong Learning (DigComp: Problem Solving - Identifying Digital Knowledge Gaps):**

    - Participants will feel empowered to incorporate AI concepts and tools into their educational practices, recognizing the importance of lifelong learning in an AI-driven world. They will be motivated to continue exploring and applying AI in their teaching methods, aligning with their professional development goals.

By aligning the learning outcomes with the DigComp framework, this training program ensures that educators acquire a comprehensive set of digital competencies vital for utilizing AI in Adult Education effectively.

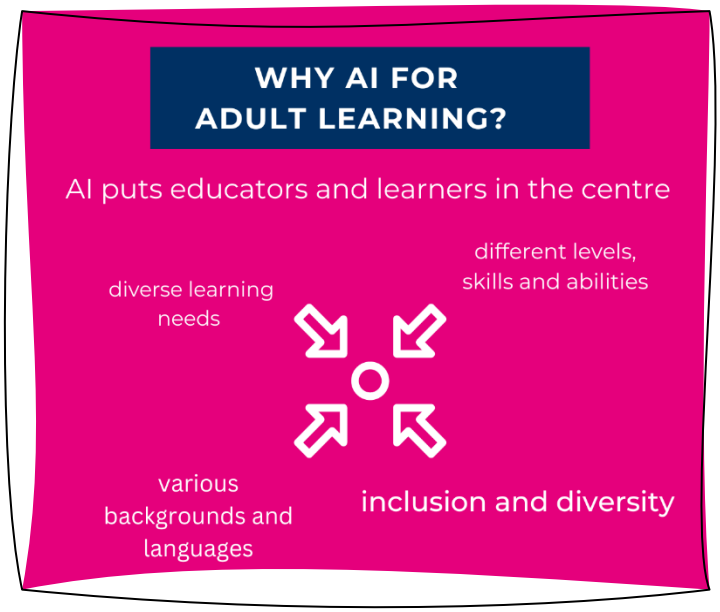
Outcomes

The AI4AL Training Toolkit for Educators is a comprehensive training programme designed to equip educators with essential knowledge and skills related to Artificial Intelligence (AI) and its application in adult learning (AI4AL). This curriculum embodies a key initiative within the project to enable educators to effectively harness AI technologies, improving learning experiences and outcomes for adult learners.

The rapid advancement of AI technologies is reshaping various aspects of society, and the field of education is no exception. Understanding AI concepts and integrating AI tools into educational practices can significantly benefit the Adult Education sector by personalizing learning experiences, optimizing curriculum design, and augmenting student support. This training program has been meticulously crafted to bridge the gap between theoretical understanding and practical implementation, fostering a deeper comprehension of AI's potential in the educational domain.

At the end of the course, the trainees:

1. Will have understood the fundamental concepts of AI and its possible applications to the Adult Education sector;
2. Will be able to fully understand the value of their contribution and that of the AI in the path that has involved them up to that moment in WP3;
3. Will be able to use the AI4AL matching tool.



Program Structure:

COURSE TITLE	**Training Toolkit - Self-paced training path**
MODULE 1 TITLE	**Understanding AI Fundamentals**
Learning objectives	✓ Develop a foundational understanding of AI by defining its core principles and tracing its historical evolution through key milestones. ✓ Acquire essential knowledge of AI terminologies, including algorithms, data, and machine learning, forming the groundwork for grasping AI concepts. ✓ Investigate the broad societal influence of AI, with a special focus on its transformative applications in adult education through Adaptive Learning and Learning Analytics. ✓ Recognize the advantages of AI in adult education, including improved personalization, enhanced engagement, and data-driven decision-making, contributing to an elevated learning landscape.
Module contents	**Chapter 1: Introduction to AI** **Chapter 2: AI Tools Landscape and Impact** **Chapter 3: Benefits of AI in Adult Education**
Module general description	**1. Introduction to AI** **1.1 Definition and Historical Context** It is essential to define the field of Artificial Intelligence (AI), and trace its historical evolution. AI, at its core, refers to the intelligence exhibited by machines, often mimicking human cognitive functions. Unraveling its historical context involves exploring the origins of AI and navigating through significant milestones that have shaped its development over time. This exploration will insights into the journey of AI, from its inception to the present landscape. Namely we will tackle: • Define Artificial Intelligence (AI) and its historical evolution.

- Explore the origins of AI and significant milestones in its development.

1.2 Basic AI Terminologies

In the realm of AI, understanding basic terminologies is crucial. Algorithms serve as the fundamental processes that empower AI systems to execute tasks with precision. Data, the raw information at the core, undergoes processing by AI systems to unveil insights and predictions. Machine Learning, a subset of AI, involves machines learning patterns from data, enabling them to make informed predictions. These key terminologies form the foundation for grasping the intricacies of AI concepts. Namely we will tackle:

- Algorithms: fundamental processes that AI systems use to perform tasks.
- Data: raw information processed by AI systems to generate insights and predictions.
- Machine Learning: a subset of AI where machines learn patterns from data to make predictions.

2. AI Tools Landscape and Impact

2.1 Understanding AI's Societal Impact

Venturing into the AI landscape, its societal impact entails a comprehensive exploration of its influence across diverse sectors. Beyond its technological facets, AI's ripple effect is felt in broader societal dimensions, permeating sectors such as education. This discussion delves into the profound implications AI has on shaping societal landscapes, with a particular focus on its transformative role within educational frameworks. Understanding AI's societal impact involves unraveling its multifaceted contributions and considerations in shaping the collective future.

2.2 AI Applications in Adult Education

Embarking on a journey to enhance adult education involves an exploration of AI applications designed for this purpose. Adaptive Learning stands out as a key facet, where AI systems take center stage in personalizing learning experiences tailored to the unique needs of individual adult learners. This personalized approach fosters a dynamic and effective learning environment. Complementing this, Learning Analytics harnesses the power of AI-driven analysis on learner data, offering valuable insights that educators can leverage to optimize teaching strategies. Together, these AI applications

	constitute a transformative force in elevating the landscape of adult education. Namely we will Tackle: • Adaptive Learning: AI systems personalizing learning experiences for individual adult learners. • Learning Analytics: AI-driven analysis of learner data to optimize teaching strategies. **Chapter 3: Benefits of AI in Adult Education** Exploring the integration of AI in adult education reveals a host of benefits. Improved Personalization takes center stage, as AI tailors learning experiences to individual preferences and needs, enhancing overall effectiveness. Additionally, the incorporation of AI brings about Enhanced Engagement through interactive tools, fostering increased motivation among adult learners. Furthermore, Data-Driven Decision Making emerges as a key advantage, utilizing AI analytics to inform instructional strategies and optimize learning outcomes. Together, these benefits highlight the transformative potential of AI in elevating the landscape of adult education. Namely we will tackle: • Improved Personalization: Tailoring learning experiences to individual learner needs and preferences. • Enhanced Engagement: Using interactive AI-powered tools to increase engagement and motivation. • Data-Driven Decision Making: Utilizing AI analytics to inform instructional strategies and optimize learning outcomes.
MODULE 2 TITLE	**Ethical and Responsible AI Use**
Learning objectives	Ethical and responsible use of AI aims to ensure that AI systems are developed and used in a way that is ethical, responsible, fair and beneficial to society. This includes consideration of the following issues: ✓ AI systems should have an equal and non-discriminatory treatment of all individuals. This requires transparency, accountability and human oversight. ✓ AI systems collect and store sensitive personal data. This data must be protected from unauthorised access and use.

	✓ Humans should retain control over AI systems and be able to intervene when necessary. ✓ AI systems should be developed and deployed in a way that has a positive impact on society and does not do harm to individuals or society. By following these principles, we can ensure that AI is used for the benefit of all, not to harm any individual or group.
Module contents	**Chapter 1: Addressing Bias in AI** **Chapter 2: Fairness and AI** **Chapter 3: Guidelines for Ethical AI Use in Adult Education** **Chapter 4: Strategies to Minimize Biases**
Module general description	**Chapter 1: Addressing Bias in AI** "Only around a quarter (28 per cent) of respondents in the five [USA, Canada, Germany, Great Britain and Australia] countries are prepared to trust artificial intelligence in general. Nevertheless, 42 percent of citizens accept the technology and 28 per cent tolerate it." Many of the respondents listed here have little to no contact with technology, and few do not use any technology. What biases might people have against artificial intelligence and what are the arguments in favour? Below you will find an initial selection of possible biases and arguments in favour of and against them. But what biases might people have about AI? 1. 1. Jobs will be lost to AI - people will lose their jobs and there will be a negative impact on the labour market. “"AI has the potential to destroy jobs that previously seemed secure because they involve thinking, human judgement or knowledge," explains designer Mark Rolston.” There is definitely a high risk that some jobs will be eliminated by AI. But in the meantime, new jobs will be made easier by the use of AI, which means more people will be "qualified" to do the job, and new jobs will be created. → AI Data Engineer, AI Model Curator, AI Ethicist, ... 2. Lack of transparency/disinformation One reason for AI disinformation is that AI systems are trained on data sets that contain errors or already contain incorrect information. These errors can come from a variety of sources,

including insufficient data sets, unreliable sources, or deliberate manipulation.
This module will take a closer look at the biases in the use of AI and their background.

Chapter 2: Fairness and AI

In the most general sense, fairness means considering the equality of all people regardless of their origin, gender or social status, being impartial and having no prejudices against certain people (groups). In terms of artificial intelligence, it means that fairness or non-fairness should be comprehensible and verifiable so that it can be corrected if necessary.
The module deals with the weaknesses that lead to artificial intelligence not always acting fairly and without discrimination.

Chapter 3: Guidelines for Ethical AI Use in Adult Education

This module addresses the key questions that teachers and adult educators should ask themselves before using AI in their teaching methods to ensure the safe and ethical use of AI.
In addition, it is important to teach artificial intelligence other important attributes that you should be aware of.

These include:

- Primacy of human agency and control
- transparency
- diversity, non-discrimination and fairness,
- social and environmental well-being,
- data protection and data quality management

Artificial intelligence must be able to demonstrate how it has obtained and collated its information (sources and statistics used), how the data is protected and what standards it complies with to protect data and privacy. Experts are calling for an "AI memorandum" to develop safety standards to mitigate the potential impact on society. Some countries have already created guidelines to regulate the use of AI.

Before using AI, adult educators must ensure that learners have technological experience and are able to communicate this. This is the only way to ensure that other users learn and pass on the safe use of AI.

It is now much easier to check whether there are other perspectives on certain topics. AI can inspire you to look at other perspectives and subtopics, making it easier to learn about a topic and peripheral information. For this very reason, it is important to learn how to handle and verify information to get the most out of AI.

	Chapter 4: Strategies to Minimize Biases How can biases against artificial intelligence be overcome? This is essentially the topic of this chapter. It is important to mention that many biases can be minimised by introducing and implementing policies that require AI to act transparently, as this will make artificial intelligence more trustworthy. This also means that security standards must be established to protect society's data and privacy. Society needs to be sensitised to the topic of AI and technology in general. As already mentioned in the bias section, many people hardly use technology, if at all. In a protected environment, it is important to teach people how to use technology safely and to inform them about the risks, but also the precautions that can be taken. There are already many local projects that bring different generations together.
MODULE 3 TITLE	**Starting with AI: Basics and Implementation**
Learning objectives	✓ To understand the diverse applications of artificial intelligence tools in adult education, exploring how these technologies enhance learning experiences, personalize content, and support educators. ✓ To understand step-by-step what is entailed in implementing AI tools in educational settings, following a comprehensive guide, understanding the process from initiation to execution, and evaluating the impact on learning outcomes. ✓ To analyse real-world examples and use cases of integrating AI in educational environments, observing successes, challenges and lessons learned to extract principles applicable in various educational contexts.
Module contents	**Chapter 1: Applications of AI Tools in Adult Education** **Chapter 2: AI in Practice: Step-by-Step Guide** **Chapter 3: Real-world Examples and Use Cases**

	Chapter 4: Introduction to AI in Curriculum Design
Module general description	This module serves as a comprehensive introduction to the fundamentals of Artificial Intelligence (AI) within the domain of adult education. Through four key chapters, participants will delve into the multifaceted landscape of AI applications and its integration into educational settings. **Chapter 1: Applications of AI Tools in Adult Education** Explore the diverse and evolving applications of AI tools within adult education. Understand how AI technologies are revolutionizing learning experiences, adapting content to individual needs, and empowering educators with innovative teaching methods. **Chapter 2: AI in Practice: Step-by-Step Guide** Gain practical insights and proficiency in implementing AI tools within educational environments. Follow a comprehensive step-by-step guide to navigate the process of integrating AI, from initial planning to execution, fostering an understanding of practical implications and potential challenges. **Chapter 3: Real-world Examples and Use Cases** Analyze real-world examples and use cases showcasing successful integration of AI in educational settings. Evaluate case studies, dissecting successes, limitations, and lessons learned to extract valuable principles applicable to diverse educational contexts. **Chapter 4: Introduction to AI in Curriculum Design** Explore the foundational principles of incorporating AI into curriculum design. Examine the potential impact of AI on shaping educational content and methodologies, laying the groundwork for designing adaptive and responsive learning structures. Throughout this module, participants will develop a comprehensive understanding of AI basics and its strategic implementation within adult education, preparing them to leverage these transformative technologies effectively within their educational practices.
MODULE 4 TITLE	**AI4AL Matching Tool: Project Showcase**

Learning objectives	✓ To understand the AI4AL matching tool's features, interface and functionality, and how to interact with them. ✓ To understand the matching tool's essential components needed for effective use, such as input parameters, matching algorithms, and output interpretation. ✓ To gain hands-on experience with the matching tool, as well as a good understanding of its use in different scenarios and how these relate to the specific needs and goals in Adult Education.
Module contents	**Chapter 1: Overview of the AI4AL Matching Tool** **Chapter 2: Key Features and Capabilities.** **Chapter 3: Guide step-by-step trough AI4AL Matching Tool**
Module general description	**Chapter 1: Overview of the AI4AL Matching Tool** An introduction to the AI4AL matching tool with an in-depth and graphic demonstration of its features, interface, and functionality, both of the student users application, as well as the educator's admin portal. This chapter offers a comprehensive overview of the tool, as well as an exploration of how the tool combines AI technology with the specific needs and goals of Adult Education. **Chapter 2: Key Features and Capabilities** Explanation of the essential features of the matching tool, such as: Input parameters, matching algorithms, output interpretation. Gain a good understanding of how to input requirements and criteria for matching, how effective matching algorithms work, and how to interpret the matching tool's output and recommendations. **Chapter 3: Guide step-by-step trough AI4AL Matching Tool** Gain hands-on experience through exercises that let you directly work with the tool. Participants are guided through different potential use cases which explore the tool's features as well as possible scenarios in which it can assist Adult Education.
MODULE 5 TITLE	**Digital Competences for Educators and Citizens**

Learning objectives	✓ To provide an overview of key digital competences for citizens and educators based on European Digital Competence Frameworks (DigComp and DigCompEdu) ✓ To introduce tools for self-assessment of digital competences and create a self awareness on the potential knowledge gaps and areas for improvement ✓ To highlight the importance of lifelong learning to keep up with the pace of digital transformation and to provide some resources that can be used for this purpose
Module contents	**Chapter 1: An overview of digital competence for learners (citizens) - The DigComp framework** **Chapter 2: An overview of digital competence for educators – The DigCompEdu framework** **Chapter 3: Self-assessment of digital skills** **Chapter 4: Embracing lifelong learning for digital skills: Keeping up with the pace of technology**
Module general description	**1. An overview of digital competence for learners (citizens) - The DigComp framework** An introduction about digital competence as one of the 8 key life competences of EU education policies and the creation of competence frameworks to support their implementation: DigComp as the framework for all citizens and DigComp Edu as the framework for educators. The Digital Competence Framework for Citizens (DigComp), provides a common language to identify and describe the key areas of digital competence. It is an EU-wide tool to improve citizens' digital competence, help policy-makers formulate policies that support digital competence building, and plan education and training initiatives to improve the digital competence of specific target groups. **2. An overview of digital competence for educators – The DigCompEdu framework** The European Framework for the Digital Competence of Educators (DigCompEdu) is a scientifically sound framework describing what it means for educators to be digitally competent. It provides a general reference frame to support the development of educator-specific digital competences in Europe. DigCompEdu is directed towards educators at all levels of education, from early childhood to higher and adult

	education, including general and vocational education and training, special needs education, and non-formal learning contexts. **3. Self-assessment of digital skills** ● Demonstration of two tools: ○ MyDigiSkills (for citizens based on DigComp) ○ SELFIE (for teachers based on DigCompEdu) ● Further resources: List of other tools for self-assessment mentioned in DigComp2.2. (Europass, DigCompSat, Digital Skills Index, DigComp Certification COP and DigComp COP) **4. Embracing lifelong learning for digital skills: Keeping up with the pace of technology** ● Importance of continuous professional development for educators, particularly in the context of evolving technologies like AI. ● Benefits of staying updated with technological advancements and trends for citizens and the aspect of digital inclusion. ● Strategies for educators to engage in continuous learning and upskilling in AI and related technologies, such as online courses and webinars, professional communities and networking, online resources...
MODULE 6 TITLE	**The AI4AL Scenario Repository**
Learning objectives	✓ To understand the goals and the value of the Scenario Repository as a participatory process ✓ To learn how to navigate a wiki to explore the Scenario Repository's content. ✓ To learn how to publish content on a wiki to contribute to the Scenario Repository.
Module contents	**Chapter 1: Understanding the goals and the value of the Scenario Repository as a participatory process** **Chapter 2: Exploring the repository's content** **Chapter 3: Publishing scenarios on the repository**
Module general description	This module is going to take the educators through a journey navigating the wiki platform of our project!

Chapter 1: Understanding the goals and the value of the Scenario Repository as a participatory process

- An introduction to the role of sharing scenarios in the learning journey of not yet codified knowledge.
- The role of scenarios in the circular process of the AI4AL project.
- How to create an effective scenario for the AI4AL project.
- The wiki as a tool for sharing scenarios.

Chapter 2: Exploring the repository's content

- How to navigate the wiki's menu
- How to use the text-based search
- How to use the tag-based filtering

Chapter 3: Publishing scenarios on the repository

- How to create a template-based scenario
- How to edit an existing scenario
- How to use the discussion boards

Self-assessment

At the end of each module a self-assessment test will be developed according to the following forms of exercises that aim to reinforce your understanding of AI fundamentals, its societal impact, and the specific applications and benefits within the context of adult education.

Self-Assessment Exercise 1: Quiz

A self-assessment quiz is a structured set of questions designed for individuals to evaluate their knowledge, skills, or understanding on a particular topic. It could cover a range of subjects, from academic knowledge to personal development skills. These quizzes provide a quick and measurable way for individuals to gauge their own proficiency, identify areas of strength, and pinpoint areas that may need improvement. They serve as a valuable tool for self-reflection, guiding individuals towards targeted areas of growth and development.

Self-Assessment Exercise 2: Societal Impact Reflection

A self-assessment reflection statement in the context of societal impact involves individuals reflecting on their actions, behaviors, or projects and considering the broader consequences on society. It encourages a deeper understanding of one's role in the community, fostering a sense of responsibility. This type of self-assessment helps individuals recognize their impact—both positive and negative—on the world around them. It serves as a crucial tool for personal and societal growth, promoting a thoughtful approach to decision-making and a commitment to making positive contributions.

Self-Assessment Exercise 3: Application Analysis

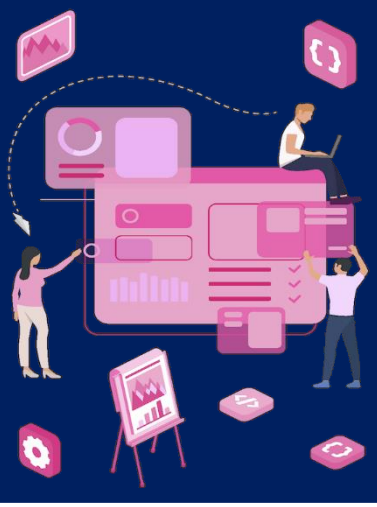
An application analysis self-assessment involves evaluating the practical application of skills, knowledge, or strategies in real-world scenarios. It goes beyond theoretical understanding, focusing on how effectively individuals can apply what they've learned. This type of assessment is particularly useful for professionals, students, or anyone seeking to bridge the gap between theory and practice. It helps individuals identify the effectiveness of their skills in real-life situations, allowing for targeted improvements and a more well-rounded skill set.

Conclusion

The AI4AL training toolkit is designed as a comprehensive resource, strategically crafted to inspire and empower educators. Its primary objective is to encourage educators to proactively embrace the potential of artificial intelligence, advocating for its thoughtful and ethical integration into their teaching methodologies.

With a transformative vision in mind, the toolkit serves as a catalyst for educators, providing not only inspiration but also practical guidance. By offering insights, information, and hands-on support, it aims to equip educators with the confidence to embark on a journey where AI becomes a seamlessly integrated aspect of the learning experience.

At its core, the toolkit envisions a future where AI is mindfully adapted to fit the needs of the educators and adult learners in complementarity with the relationship between the two, optimizing and personalizing the learning journey for all adult learners. By fostering a mindset of innovation coupled with ethical considerations, it aspires to contribute to a more inclusive, adaptive, and effective educational environment.



AI

Artificial Intelligence 4 Adult Learning

www.ai4al.eu

@ai4al

Co-funded by
the European Union